

**REMARKS**

Claims 1-6 are all the claims pending in the application. These claims stand rejected under 35 USC 103(a) as being unpatentable over the admitted prior art in view of U.S. Patent No. 6,255,707 (Bylsma). The Examiner has also objected to the drawings. Applicant has included replacement drawing sheets for Figure 8-12 with this Amendment that address the Examiner's objection. The Examiner is kindly requested to acknowledge acceptance of the drawings in the next Office Action.

The Examiner also objected to claim 1 stating that the voltage measurement "means" should be changed to --unit--. Notwithstanding the reasoning for this change which is unclear to the Applicant, the Examiner is respectfully referred to the January 28, 2002 Preliminary Amendment in which claim 1 was amended to recite a "voltage measurement unit." As such, Applicant requests that the Examiner withdraw the objection to claim 1.

**Rejection of the Claims:**

The Examiner has rejected claims 1-6 under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Bylsma. The Examiner alleges that with respect to claims 1 and 5-6, the admitted prior art shows in Figure 11, a laser diode 1, a current source 10, and a detection unit 18. However, the Examiner states that the prior art does not disclose a voltage measurement unit. Nonetheless, the Examiner states that Bylsma et al. teach this voltage measurement feature and refers to voltage measurement unit 110 shown in Figure 5 of Bylsma. Applicant respectfully traverses this rejection.

First, assuming arguendo that Figure 11 of the present application actually discloses an abnormality detection unit as alleged by the Examiner, this unit would consist of photodiode 16, light intensity measuring unit 17 and fault detector 18. Independent claim 1 (and 2) recite that the abnormality detection unit detects an abnormality based on output of a voltage measurement unit. In the present invention, a voltage measurement unit measures a voltage at both ends of the laser diode. This measurement is provided to the abnormality detection unit. On the other hand, the device disclosed by Figure 11 of the present application is *not capable* of detection using voltages. Rather, photodiode 16, light intensity measuring unit 17 and fault detector 18 measure excitation light of the laser diode. This is quite different than the abnormality detection unit of the present invention in structure and function.

Further, while Bylsma discloses a voltage measurement device 100, the function of this voltage measurement device is to test semiconductor lasers *at the wafer fabrication level* (see col. 3, lines 44-46). This testing process *during fabrication* is also quite different than a laser diode or laser device using diodes that includes a voltage measurement unit within itself.

In addition, independent claim 1 (and 2) recite that the voltage is measured at both ends of the laser diode(s). In contrast, since Bylsma et al. is related to testing semiconductor wafers for changes in electrical properties, voltage is measured at a voltage test point (for example, voltage test point 220 disposed on clad layer 260 as shown in Figure 3). Thus, the structure and function of the voltage measurement device of Bylsma et al. is entirely different than that of the present invention. Since neither of the device shown in Figure 11, nor Bylsma et al. teach or

suggest a voltage measurement unit or an abnormality detection unit as recited in independent claim 1 (and 2), Applicant respectfully submits that these claims are allowable.

Accordingly, Applicant traverses the statement by the Examiner that it would have been obvious to incorporate the voltage measurement device of Bylsma into the Figure 11 device. As discussed, the Figure 11 device measures diode performance based on excitation light of the laser diode. Bylsma teach measuring the voltage of semiconductor wafers during fabrication. Based on these entirely different devices, Applicant fails to see how one of ordinary skill in the art at the time would have been motivated to incorporate the voltage measurement device of Bylsma et al. into the Figure 11 device.

Dependent claims 3-6 also include features relating to voltage measurement of the diode that is neither taught or suggested by the combination of the Figure 11 device and Bylsma for the reasons discussed above. Accordingly, these claims are allowable based on their dependency on claims 1 and 2, as applicable, as well as their own “voltage measurement” features.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No. 10/048,233

Attorney Docket No. Q67191

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Ronald Kimble  
Registration No. 44,186

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
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